UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,776	10/26/2000	Matthew Paul Chapman	GB920000040US1	4741

7590 03/29/2004	**EXAMINER**
David A Mims Jr	TANG, KENNETH
IBM Corp IP Law	

ART UNIT	PAPER NUMBER
2127	4

11400 Burnett Road Zip 4054
Austin, TX 78758

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 October 2000_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-34_ is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-34_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☒ All b)☐ Some * c)☐ None of:
    1.☒ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _2_.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-34 are presented for examination.

Specification

2.   The disclosure is objected to because it contains an embedded hyperlink and/or other

form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or

other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

3.   **Claims 1-7, 10-18, 21-29, and 32-34 are rejected under 35 U.S.C. 102(e) as being**

anticipated by Keyes (US 6,453,460 B1).

4.   As to claims 1 and 12, Keyes teaches a system and method of running multiple

applications in a computer system on a virtual machine such that the multiple applications appear

to the virtual machine as only a single application *(see Abstract),* comprising the steps of:

-     running a single environment application on said virtual machine *(col. 3, lines 3-8);*

- loading one or more applications as compiled code into said environment application, each of said one or more applications being assigned to a separate process within the environment application *(col. 2, lines 1-5)*; and

- running said one or more applications by running their assigned processes within the environment application, whereby said one or more applications appear to the virtual machine as part of the environment application *(col. 2, lines 57-60)*; and

- wherein said step of loading includes the steps of scanning said compiled code for certain predetermined instructions, and making a modification to the compiled code of such predetermined instructions to incorporate at least one other instruction *(col. 4, lines 35-47, col. 5, lines 63-67 and col. 7, lines 47-52, and col. 9, lines 1-10 and Table 2)*.

5.   As to claims 2, 13 and 24, Keyes teaches wherein said virtual machine is capable of directly supporting only a single application *(see Abstract)*.

6.   As to claims 3-4, 14-15, and 25-26, Keyes teaches wherein said predetermined instructions include a system exit call.

7.   As to claims 5, 16, and 27, Keyes teaches wherein said predetermined instructions include a call to create certain system user interface objects *(col. 11, lines 33-53, Fig. 6, 612)*.

8.   As to claims 6, 17, and 28, Keyes teaches wherein the modification made is to
incorporate a call back to the environment application with a reference to the user interface
object and the process which created it *(col. 11, lines 33-53, Fig. 612)*.

9.   As to claims 7, 18, and 29, Keyes teaches wherein the environment application maintains
a list for each of said one or more applications of any user interface objects associated with it, the
environment application being responsive to completion of one of the one or more applications
for deleting any user interface objects associated therewith *(see Claim 1)*.

10.   As to claims 10, 21, and 32, it is rejected for the same reasons as stated in the rejection of
claim 1.

11.   As to claims 11, 22, and 33, Keyes teaches the step, responsive to detecting an instruction
that changes a system variable, of launching a new virtual machine to run the application that
includes such instruction (see Abstract).

12.   As to claim 23, Keyes teaches a computer program product comprising computer
program instructions in ia computer readable medium for implementation on a computer system
running a virtual machine, said instructions creating an environment application running on the
virtual. machine which is capable of running multiple applications on the virtual machine,
whereby the multiple applications appear to the virtual machine as only a single application *(see
Abstract)*, said environment application comprising:

- means for loading one or more applications as compiled code into said environment

  application *(col. 2, lines 1-5)*;

- means for assigning each of said one or more applications to a separate process within the

  environment application *(col. 2, lines 1-5)*; and

- means for launching each of said one or more applications within the process assigned

  thereto, such that it appears to the Virtual machine as part of the environment application

  (col. 2, lines 57-60); and

- wherein said means for loading includes means for scanning said compiled code for

  certain predetermined instructions, and means for making a modification to the compiled

  code of such predetermined instructions to incorporate at least one other instruction.

13.   As to claim 34, Keyes teaches the program product wherein said means for loading

comprises a class loader which is a subclass of a system class loader included in the virtual

machine *(Fig. 2, items 232 and 266)*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14.   **Claims 8-9, 19-20, and 30-31 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Keyes (US 6,453,460 B1).

15.   As to claims 8, 19, and 30, Keyes fails to explicitly teach the step of redirecting system

output for the virtual machine to the environment application. However, Keyes does teach that

the environment has a single processing space and not designed for microprocessing with a

process switch (see Abstract). Therefore, it would be obvious to one of ordinary skill in the art

that the system output would need to be redirected back because there is only one processing

space for it.

16.   As to claims 9, 20, and 31, it is rejected for the same reasons as the rejection of claims 8,

19, and 30. In addition, it is well known that there are flags/tags/Boolean values located in the

component that manages I/O Interface and PDL data *(Fig. 6, item 612)*. These flags are a

standard for use as indicators.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The

examiner can normally be reached on 8:30AM - 7:00PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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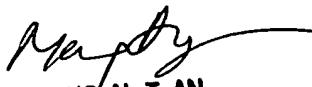
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